

### **REMARKS/ARGUMENTS**

Claims 1-3, 5-7, 9-42, 44-53 and 56-57 and 203-204 are currently pending in the application. Claims 4, 8, 43 and 54-55 have been canceled without prejudice. Claims 11, 13-21 and 23-36 have been rejoined. Claims 58-202 and 205-213 have been canceled without prejudice because they are drawn to a non-elected invention with traverse. The amendment is being filed with a Request for Continued Examination and a petition for one month extension of time. A credit card authorization is being submitted herewith. Applicants respectfully submit that no additional fees are due at this time.

Applicants respectfully submit that the foregoing amendments to the claims are supported in the application as originally filed and that no new matter has been added. In view of the following remarks and amendments, applicants respectfully request a timely Notice of Allowance be issued in this case.

#### ***Claim Objections***

The Office objected to claims 11, 13-21 and 23-36 as being of improper dependant form. Claims 11, 13-21 and 23-36 have been amended to correct the dependency of the claims. Applicants respectfully request withdrawal of the objections.

#### ***Claim Rejections under 35 U.S.C. § 112, First Paragraph***

Claims 18-20, 23, 26 and 30-36 were rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. Applicants respectfully submit that appropriate amendments have been made to the claims. The specification has been amended (new paragraph [0072.2]) to describe the datasets and terms disclosed in originally filed claims 18-20, 23, 26 and 30-36. As a result, Applicants respectfully submit that no new matter has been added.

“There is a strong presumption that an adequate written description of the claimed invention is present in the specification as filed . . . . Consequently, ***rejection of an original claim for lack of written description should be rare.***” MPEP § 2163 II.A (emphasis added). Moreover, “[t]he absence of definitions or details for well-established terms or procedures should not be the basis of a rejection under 35 U.S.C. 112, para. 1, for lack of adequate written description.” MPEP § 2163 II.A.1. “***Information which is well known in the art need not be described in detail in the specification.***” MPEP § 2163 II.A.2 (emphasis added). “If a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met.” MPEP § 2163 II.A.3(a).

Applicants respectfully submit that claims 18-20, 23, 26 and 30-36 satisfy the requirements of § 112, first paragraph, because these claims: (a) were originally filed in the application; (b) are dependant claims that provide additional alternatives that can be

used in the invention as recited in claim 1, which was not rejected under the written description requirement; and (c) contain terms that are well known in the art and need not be described in detail in the specification.

First, claims 18-20, 23, 26 and 30-36 were filed in the original application and the terms that are being objected to have not been amended. As a result, “[t]here is a strong presumption that an adequate written description of the claimed invention is present in the specification as filed” (MPEP § 2163 II.A.1) for these claims.

Second, claims 18-20, 23, 26 and 30-36 depend from claim 1. Claim 1 has been allowed, so it satisfies the written description requirement. Claims 9 and 11-21 recite various examples of what the “dataset of two or more genes” may comprise. Claims 9 and 12 have been allowed, so they satisfy the written description requirement. Claims 11, 13-17 and 21 were objected to as being of improper form, but were not rejected for failure to satisfy the written description requirement. Similarly, claims 22-36 recite various examples of how the calculated variation frequency can be adjusted. Claim 22 has been allowed, so it satisfies the written description requirement. Claims 24-25 and 27-29 were objected to as being of improper form, but were not rejected for failure to satisfy the written description requirement. The Office Action indicated that examples of adjusting the calculated variation frequency can be found in Paragraphs [0065], [0083] and [0085] of the specification. The specification provides additional examples (“reclassify” or “modify”) in Paragraphs [0093]-[0095]. Applicants respectfully submit that the examination of claims 1, 9, 11-17, 21-22, 24-25 and 27-29 demonstrates that the “skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing” (MPEP § 2163 II.A.3(a)) and that claims 18-20, 23, 26 and 30-36 are merely additional alternatives or nuances that do not need to be explicitly described in the specification. As a result, the adequate description requirement is met. MPEP § 2163 II.A.3(a).

Third, claims 18-20, 23, 26 and 30-36 contain terms that are well known in the art and need not be described in detail in the specification. Applicants respectfully submit that these datasets and terms are well known to those skilled in the art as evidenced by printouts of search results on the databases available on the website for the National Center for Biotechnology Information (established in 1988) attached hereto as Exhibit A:

Claim	Search Term	PubMed Central Hits	Site Search Hits	Book Hits	Exhibit
18	“linkage database”	13	71	42	A-1
19	“splice variant database”	1,527	29	11	A-2
20	“translocation database”	4,535	3	7	A-3
23	“engineered gene” or “non-naturally occurring gene”	92	7	6	A-4

26	“cDNA stability”	20,071	1	24	A-5
30	“post translational modification sequence”	5,274	8	29	A-6
31	“protein stability”	3,909	1	23	A-7
32	“predicted protein transport”	2,246	-	3	A-8
33	“shuffled gene”	878	7	3	A-9
34	“site-directed mutagenesis gene”	22,270	2	45	A-10
35	“methylated sequence”	161	2	84	A-11
36	“epigenetic variation”	70	-	1	A-12

The Advisory Action mailed on September 17, 2007 conceded that the “databases may be referred to in the art by the same names as those recited in the claims”, but indicated that a “clear and complete description” of the databases was required in the specification so that one of skill in the art would know “whether the databases of the prior art are indeed those envisioned by applicant for use in his inventive method.” (Continuation of 11). Applicants respectfully submit that such an elevated level of description is not required by 35 U.S.C. § 112, first paragraph, or the MPEP for a subset of dependant claims that provide additional alternatives using terms that are well known by those of skill in the art.

For all the reasons stated above, Applicants respectfully submit that claims 18-20, 23, 26 and 30-36 are allowable under 35 U.S.C. § 112, first paragraph, even if they not explicitly described in the specification. Moreover, Applicants respectfully submit that the record as a whole, including amendments, arguments and evidence now demonstrates that the written description requirement is satisfied. MPEP § 2162.04 II. As a result, Applicants respectfully submit that the claims comply with the written description requirement required by 35 U.S.C. § 112, first paragraph. Accordingly, Applicants request the withdrawal of the rejections and allowance of all pending claims.

***Claim Rejections under 35 U.S.C. § 112, Second Paragraph***

Claims 11, 13-21 and 23-36 were rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicants respectfully submit that appropriate amendments have been made to the claims. For example, claims 11 and 13-21 have been amended to be consistent with the claim format used in allowed claim 12. Similarly, claims 23-36 have been amended to be consistent with the claim format used in allowed claim 22. Examples of adjusting the calculated variation frequency can be found in Paragraphs [0065], [0083] and [0085] of the specification. The specification provides additional examples (“reclassify” or “modify”) in Paragraphs [0093]-[0095]. As previously described, claims 18-20, 23, 26 and 30-36 recite well known terms that clearly

and distinctly claim the invention in light of the specification and common knowledge of those skilled in the art. An example of a linkage database is shown in Exhibit A-13 (note that this specific database was accessible on the Internet after the filing of the present application). As a result, Applicants respectfully submit that the claims distinctly claim the invention are required by 35 U.S.C. § 112, second paragraph. Accordingly, Applicants request the withdrawal of the rejections and allowance of all pending claims.

***Allowed Claims***

Applicants gratefully acknowledge the allowance of claims 1-3, 5-7, 9-10, 12, 22, 37-42, 44-53, 56-57 and 203-204.

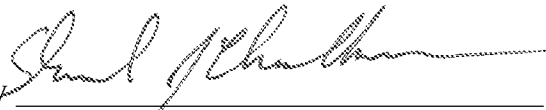
***Conclusion***

Applicants respectfully submit that claims 1-3, 5-7, 9-10, 12, 22, 37-42, 44-53, 56-57 and 203-204, as amended, are fully patentable. Applicants respectfully request that a timely Notice of Allowance be issued in this case. If the examiner has any questions or comments, or if further clarification is required, it is requested that the examiner contact the undersigned at the telephone number listed below.

Date: October 15, 2007

Respectfully submitted,

CHALKER FLORES, LLP

By 

Daniel J. Chalker  
Reg. No. 40,552  
Tel.: (214) 866-0001  
Fax: (214) 866-0010

2711 LBJ Frwy  
Suite 1036  
Dallas, Texas 75234